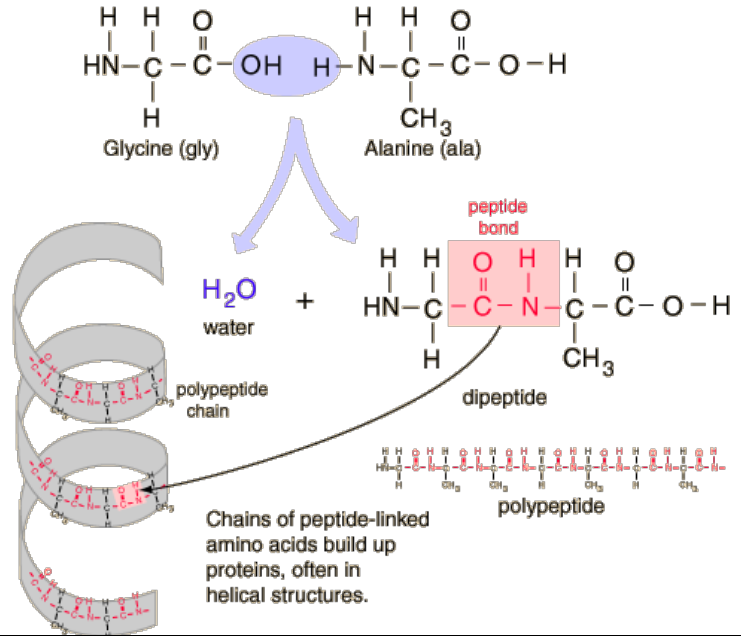
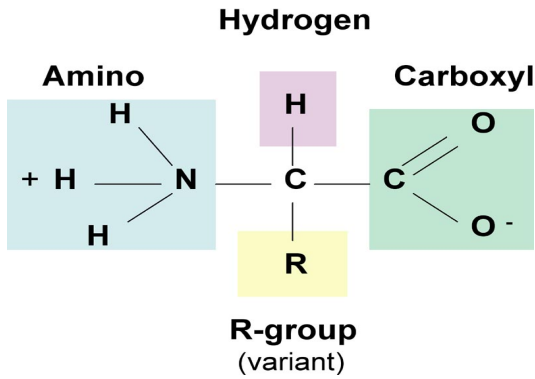


Protein Lab

Proteins are made of many different amino acids bonded together. Proteins differ by the number and order of amino acids in the protein.

Amino Acid Structure



Pre- Lab Questions

1. What atoms are present in the amino acids shown above? _____
2. How does this differ from carbohydrates? _____
3. Look at the diagram of peptide binding on the right.
 - a. What is the byproduct (what is made) of peptide bonding? _____
 - b. What is the name of this kind of reaction? _____

2 Proteins

Protein Test

1. The chemical indicator for proteins is the indicator Biuret.
2. Prepare a positive control with about 20 drops of albumin (a kind of protein) and an equal volume of the indicator Biuret.
3. Make a negative control using water and Biuret.
4. Test two different foods for proteins using a small amount of liquified food. Be sure to avoid sucking up food chunks.
5. Fill in the table below with your results

Test Tube Number	Do you expect this to contain protein?	Result	What does this indicate?
<i>Test Tube 1:</i> Positive Control Albumin + Biuret			
<i>Test Tube 2:</i> Negative Control Water + Biuret			
<i>Test Tube 3:</i> Food 1 + Biuret			
<i>Test Tube 4:</i> Food 2 + Biuret			

Analysis Questions:

Be sure to answer in complete sentences

1. Draw the basic structure of an amino acid below:
2. What is an R group?
3. How many different amino acids are there in living things? What makes them different from each other?
4. What is the purpose of protein in your body?
5. When might you want to have more protein in your diet?